Colorado Wind and Distributed Energy: Renewables for Rural Prosperity

Workshop and Exhibition • April 8-9, 2002 • Renaissance Denver Hotel • Denver, Colorado

How can farmers, ranchers, rural electric cooperatives and others interested in rural economic development capture Colorado's abundant wind energy resources and use distributed energy generation to increase the vitality of Colorado's rural economy? Those topics will be explored in-depth at "Colorado Wind and Distributed Energy: Renewables for Rural Prosperity" on April 8 and 9 in Denver.

Workshop Goals

- Provide "state-of-the-art technology" information and demonstrations on wind energy and distributed generation technologies for Colorado's rural agricultural community.
- Promote agricultural participation in, and support for, distributed generation and wind resources as a way to supply electricity; generate new income sources; and reduce environmental impacts.
- Review developing and ongoing wind and bio-digester installations in Colorado and elsewhere.
- Promote discussions between Colorado ranchers and farmers and their electric and gas suppliers, to further interconnection of distributed generation resources to the electric grid.

Monday, April 8 — Wind Energy Focus

Sessions will explore how to capture the wind and reap benefits for rural Colorado. Experts will provide state-of-the-art information on wind energy costs and benefits as well as Colorado wind resources, technology, applications, markets, policy and financing.

Tuesday, April 9 — Distributed Energy Focus

Farmers, utilities and manufacturers will discuss actual applications and costs of a variety of distributed energy technologies, as well as how to assess project viability. In addition, experts will provide information on technical and financial assistance available to implement DE projects.

Exhibits — Both Days

Exhibits both days at the Renaissance Hotel and at the nearby Urban Farm at Stapleton will provide great opportunities to talk with company representatives and see demonstrations of wind turbines, fuel cells, biofuels, photovoltaic systems and more.

Sunday, April 7, 10:00 a.m.-5:00 p.m.

Pre-workshop event: "Colorado Sustainable Living Roundup" at the Urban Farm at Stapleton offers additional opportunities to see these technologies in action.

Preliminary Workshop Topics

Registration begins at 7:30 a.m. Monday, April 8

Monday, April 8 — Wind Energy Focus

Preliminary Topics

- State of wind power technologies
- Rural economic development through renewable energy
- Municipal utility wind development models
- Rural electric cooperative wind development models
- Wind power as a "cash crop" for Colorado farmers and ranchers
- Wind irrigation analysis tools
- USDA Rural Utility Service programs to aid development
- Wind Powering America programs
- Colorado renewable resource studies
- Experiences in other states lessons learned
- Investing in large-scale wind power
- How can Colorado attract investors?
- Opportunities for in-state investors
- Markets for electricity and green credits
- Small and medium wind and distributed generation
- Determining if a small wind system is right for your home, farm or business
- How to obtain and install small turbines
- On- and off- grid applications of small to medium turbines
- Agricultural applications of medium-size wind systems
- Potential benefits of distributed generation
- Issues pertinent to long-term success/ development
- Transmission issues
- Technology development
- Wind turbine and related technology manufacturing

Invited Speakers — April 8

Bill Owens, Governor

Mark Udall, U.S. Congressional Representative

Ron Rebenitsch, Basin Electric Cooperative

Dale Osborne, DisGen Wind Development

Lori Clements-Grote, Fort Collins Utilities

Darin Husby, SeaWest Wind Power

Gary Schmitz, Colorado Public Utility Commission

Ron Lehr, Attorney

Larry Flowers, National Renewable Energy Laboratory

Steve Palomo, U.S. Department of Energy

Andy Sulkko, Xcel Energy

Michale Payne, Enron Wind Development Corporation

Tuesday, April 9 — Distributed Energy Focus

Preliminary Topics

- State of distributed energy technologies
- Legislative briefing on opportunities for rural economic development through wind and distributed generation technologies
- Successes and barriers to distributed generation interconnection nationally and in Colorado
- Interconnection models that are working
- Barriers: Real and/or imagined?
- Cooperation between distributed generation sites and local distribution companies
- What will it take to move forward?
- State of biofuel technologies
- Biofuels as a "cash crop" for Colorado farmers what crops are most promising?
- Distributed energy technology case studies:
- Landowner blending of anaerobic digesters and microturbines
- Utility development of anaerobic digesters for power
- Landowner use of solar water pumping
- Biofuels development
- Utility/landowner resources
 - How to assess project viability for landowners and rural electric cooperatives
- Looking Forward
- Next steps and timeline to move forward with distributed generation technologies, interconnection standards and net metering agreements

Invited Speakers — April 9

Tom Starrs, Kelso Starrs and Associates

Gary Swanson, Colorado Pork, LLC.

Jeff Cole, Portland General Electric

Steve Johnson, ECO

Rolland Skinner, Northwest Rural PPD

Bob Putnam, AWS Scientific

Ed Torrero, Cooperative Research Network

John H. Ashworth, PhD, NREL-Biofuels Industrial Partnerships

George Schultz, USDA Rural Utility Service

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Registration Form

Monday, April 8 — Wind Energy Focus Registration postmarked by March 22		Tuesday, April 9 — Distributed Energy Focus Registration postmarked after March 22		
Attending both April 8 and 9	\$85	☐ Attending both April 8 and 9	\$95	
☐ Attending April 8 only	\$50	☐ Attending April 8 only	\$60	
☐ Attending April 9 only	\$50	☐ Attending April 9 only	\$60	
Registration Fee includes continental breakfast and lu	unch, and admission to workshop	sessions, demonstrations at the Urban Farm and	the Exhibit at the workshop hotel	
Name				
Name for name badge (if different)		Job title		
Organization				
Address	Cin	Char	7:	
Street Phone	City Fax		Zip	
Payment Method		Please check the topics that is	nterest you	
Mail completed form and check to:		☐ Small Wind and Remote Applications		
Rural Prosperity Workshop		Utility Scale Wind Projects		
PO Box 1263		Agriculture/Farming Applications		
Longmont, CO 80502		State Renewable Policy Initiatives		
Payable to "Howe Professional Services"		Interconnection Apparation Directors for Landaumore		
		□ Anaerobic Digesters for Landowners□ Anaerobic Digesters for Utilities		
Cancellation Policy: Refunds less a \$15 processing fee will be made until March 22. No refunds will be issued after March 22. We are unable to accept payment by credit card.		Solar Water Pumping		
		☐ Technical and Funding Resources Available to Co-ops		
		☐ Distributed Energy (Microturbines/Fuel Cells)		
11-4-1 1-6		Biofuels		
Hotel Information		Please check one that best de	escribes vour field	
The Renaissance-Denver Hotel is located at 3801 Quebec Street, directly west of the Stapleton Airport property. Rooms at the Renaissance feature private balconies, cable TV, hair dryers,		☐ State Government	ooniboo your noru	
		☐ Rural Electric Co-op		
		☐ Wind Power Developers		
irons and ironing boards and a coffee make	r.	☐ Native American Groups		
The hotel also has an award-winning restau	rant, a fitness center,	☐ Chambers of Commerce		
indoor pool, whirlpool spas, sauna and locker room.		☐ Public Utility Commissions		
A block of rooms has been reserved at the Renaissance-Denver Hotel for the special price of \$87 per night (plus tax). To reserve your room, please contact the Renaissance Denver Hotel at 800-444-2206. Please mention the <i>Rural Prosperity Workshop</i> to receive the special workshop rate. Rooms and		Department of Agriculture		
		☐ Gas/Oil Industry		
		☐ Farmer/Rancher/Landowner		
		☐ Electric Power Producer or Carrier		
		Educator Educator		
Rate guaranteed available until March 18.	Tuto Hoomb ullu	Agriculture Related Agency or Company		
Danamera a analore and march 10.		Other	_	
		Special Needs	Special Needs	
		☐ Please serve me vegetarian meals		
			☐ Please contact me to discuss how you can accommodate my	

special access needs

Sponsors to Date:



Colorado Governor's Office of Energy Management and Conservation



U.S. Department of Energy Denver Regional Office



Western Area
Power
Administration



American Corn Growers Association



Tri-State Generation and Transmission













FPL Energy

Regional Transportation District

Xcel Energy

Colorado Renewable Energy Society

City of Lamar Light and Power

National Renewable Energy Laboratory

Land and Water Fund of the Rockies Tim Olsen Consulting TransTeq The Urban Farm at Stapleton Arkansas River Power Authority Rocky Mountain Farmers Union

Rural Prosperity Workshop P. O. Box 1263 Longmont, CO 80502-1263 All American Energy
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Denver, Colorado April 8–9, 2002